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CENTRAL INTELLIGENCE AGENCY

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INFORMATION REPORT

COUNTRY Iren

SUBJECT Chrome Resources and Mining

PLACE ACQUIRED (BY SOURCE)

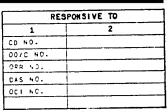
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Location

- 1. There are two major chrome areas in Iran:
 - (a) a serpentine area striking cost-west to east-northwest which extends from the afghanistan border on the east, at latitude 270 N ecross the south end of the Caspian Sea and extends into the Caucasus region of the USSR on the northwest at along latitude 390 N. I believe this is all part of the mineral area found in the vicinity of Tabriz in the northwest of Tran. It is rether narrow and has been developed in the eastern end between the towns of Abbassabad (72 on accompanying map) and Nichabour (34 on accompanying map). This is called the Abbassabad [area].
 - (b) A wide and extensive mineralized area between Kerman and Ahabod on the northwest which extends southeast into Baluchistan. This area is largely unexplored but I believe from what I gaw and heard that it has promising mineral possibilities. Chrome was being mined east of Ahabad at #1 on accompanying map. This is called the Espandagheh area.
- 2. Market

 Due to accumulated atocks of chrome ore in the US there is no market for this ore at present, Feb 54. I doubt whether the operators have the financial resources to continue mining and to stockpile the ore until the demand picks up. From what I saw and could determine, there is a large reserve, much in excess of what I could actually estimate of unusually high grade ore if means could be found to continue operations and gradually improve mining methods.

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3. Abbassabad Area

- (a) Occurrence of Ore
 Ore occurs and was being mined in about 25 locations over a strike
 length of 250 kilometers. The ore outcrops along the sides and on
 the crests of folded hills. There is no vegetation and the
 serpentine can be seen from long distances on the sides of the bare
 rocky hills. The ore contact is very sharp against the enclosing
 serpentine.
- (b) Reserves
 The tonnege of each deposit is not large. For example, I estimated that Area 2 had 300,000 tons, Area 3, 150,000 tons, Area 4, 100,000 tons. The lenses themselves are fairly large for chrome lenses. They run from 5,000 to 25,600 tons each.
- (c) Mining Methods
 The mining is all open pit and the mining methods are very crude. Holes are drilled by hend, a small amount of explosive is used and the ore barred down, loaded by hand onto small trucks or horses and hauled to a central gathering place. The ore is hard, remarkably clean with the only contamination from serpentine at the edges of the deposits. Fractically no sorting is necessary. At the gathering places the ore is loaded into five ton trucks and hauled to Shahroud where it is loaded into gondolas for the 1600 kilometer railroad trip to shipside at Khorramshahr. All mining and transport is done by contract.
- (d) Capacity
 The area can produce 3,000 tons of one per month with the 300 men working at present under crude conditions and with present equipment. This rate could be materially increased by proper mining guidance, the purchase of compressors, drills, loading machinery, small procks for gathering and large trucks for hauling. The completion of the railroad to Mashad would place every deposit within 7 to 15 kms of a railroad.
- (e) Grade of Ore
 The ore is 90% lumg. The following are analyses of 1000 ton shipments and clustrate the high grade of the ore. As mentioned, these represent average run of mine ore as no sorting except at the edge: of the deposit is required.

Analyses of Iranian Chrome Ore - Abbassabad Area

Or ₂ O ₃		51.37	52.81
F1 U		10.57	13.46
Mg C		17.57	17.00
Algos		9.17	9.52
6102		5.63	4.54
Cirre	•	3.33374	3.45:1

(f) Operating Companies

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the Iran Chromito Company

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with head offices at Namari Bldg., Smadi Avenue, Teheran.

Rexar Bros., of which Ali Rexar is the business head and Maumud /1/ Rexar is the mine operator. A Mr. Almudi has an interest in all three of the companies. He is the editor and owner of 'Dad' the principal newspaper in Teheran. His wife's brother is principal assistant to the present Prime Minister.

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(g) Transportation Gosts
The ore sells for \$40 US - FOB ship Iran; the shipping rate to US\$11;
the trucking rate from the area to Shahroud was \$5 per MT, and the
freight rate to the port only \$4 per ton. The miners and loaders make
about the equivalent or \$1 per day.

4. Esfrandaghed Area

- (a) I did not visit the Esfrandagheh area but was told that the ore lenses were about the same character as those in the Abbassabad Area. The ore shipped was very similar.
- (b) The mining methods are similar; open pit, hand mining. Shipping is by truck to Bandar-Abbass where it is hand losded into lighters by men and women stevedores. Due to the terrific heat and high humidity, loading rate from June to September is only 300 M Ts per day but at the time I left Iran in December they were loading 500 M Ts per day.
- (c) The grade of one, as shown by the following analysis of some 5000 tons shipped, is quite similar to that in the north.

	Percent
Cr203	53.15
F1 O	14.96
Mg O	15.75
A1203	13.95
Caro	Trace
Mn O	0.12
Ni O	0.24
SO 3	Trace
8102	1.65
C1:Fe	3.11:1

(d) This area could also produce about 3,000 tons per months with the 300 men and under present conditions and could materially increase this rate with some direction and mechanization.

Available on loan from CIA Map Library are:

- Photostat and white print of Road Map of Iran by the government of Iran, the Ministry of Health, Public Health Cooperative Organization, Sanitary Engineering Services Division Control Office, scale 1:2,000,000 showing chrome areas.
- Photostat and white print area 2 Abbassabad Area Map of Iran, Jajarm sheet, J-40-U, scale 1:253,440.
- 3. Photostat and white print of Area 3, Abbarsabad Area Map of Iran, Sabzawar sheet, J-40-V, scale 1:253,440.

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